

## Unit 4 – Outcome 1

### Chapters 4 & 6

#### Key knowledge

This knowledge includes:

1. Types of goals of organisations and information systems
  - Differentiate between the goals of an organisation and the goals of an information system.
  - Explain the relationship between goals and objectives.
  - Give examples of some different goals for organisations and information systems
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2. Role of components of information systems
  - Define an information system
  - Explain the role of each of the components
  - Distinguish between application and system software with the use of examples
  - Explain the different hardware devices in a normal information system.
  - Explain the different types of information systems.
3. Characteristics of strategic, tactical and operational decisions made in organisations
  - Explain the relationship between the levels of management in an organisation and the types of decisions made
  - Explain the characteristic of each type of decision
  - Give examples of these types of decisions in an organisation.
  - Describe the different types of information and which management levels would be most likely to use them.
  - What are the three factors required for good decision-making?
4. Stages of the problem-solving methodology
  - Give an example of how a spreadsheet could be used in the problem-solving process
  - What are the common causes of information problems at an organisation?
5. Problem-solving activities relating to the analysis of ongoing information problems
  - What are the three key activities involved at the analysis stage? Explain each.
6. Design tools for representing the functionality and appearance of solutions.
  - Which design tools would be best suited to showing the functionality of a spreadsheet?
  - Which design tools would be best suited to showing the appearance of a spreadsheet?
7. Criteria for evaluating the efficiency and effectiveness of solutions to ongoing information problems.
  - What is the purpose of evaluation criteria
  - List some common criteria that could be used to evaluate the efficiency and effectiveness of a spreadsheet solution.

8. Functions, techniques and procedures for efficiently and effectively manipulating data using an RDBMS or spreadsheet software, including the application of formats and conventions, the validation of data and the management of files.
  - Explain some validation techniques that would be effective in a spreadsheet solution.
  - Which formats are commonly used in a spreadsheet? What conventions would be important for these formats?
  - Explain the use of the following spreadsheet functions: conditional formatting, formulas, conditional statements, lookup tables, cell protection, graphs, comments, macros, relative and absolute cell reference, naming a range, sheet referencing, formatting.
  - Explain how each of these functions could improve efficiency and/or effectiveness.
9. Techniques for testing solutions and user acceptance.
  - Why is it important that a solution is tested?
  - Which attributes of a spreadsheet should be tested. Explain each attribute.
10. Strategies for evaluating the extent to which solutions meet organisations' needs.
  - Differentiate between testing and evaluation.
  - Who should undertake the evaluation of an information solution?
  - What techniques could be used to collect the data to evaluate the solution?
  - When should the evaluation occur?
11. Content and types of onscreen user documentation, including quick start guide, tutorial, content sensitive help and manual.
  - What characteristics would you look for in effective user documentation?
  - What are the advantages of onscreen over printed user documentation?
  - What format should onscreen user documentation be in. Explain with the use of an example.
  - Describe each of the types of onscreen user documentation.
  - How is the content of user documentation decided upon?
12. Characteristics of efficient and effective user interfaces and information architecture.
  - Define user interface and information architecture.
  - Explain the characteristics of high quality user interfaces.
  - What makes information architecture effective?
13. Functions, techniques and procedures for efficiently and effectively manipulating data using web authoring or multimedia authoring software.
  - See Unit 3, Outcome 1 No. 11.